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09/768,102	01/23/2001	Linda Lee Grimaldi	NEO-0002	9644

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EXAMINER

SCHLAIFER, JONATHAN D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/768,102

Applicant(s)

GRIMALDI ET AL.

Examiner

Jonathan D. Schlaifer

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This action is responsive to an Amendment to Application 09/768,102 filed on 8/23/2004.
2. Claims 1-31 are pending in the case. Claims 1, 16, and 24 are independent claims.  
  
Claims 1 and 23-24 have been amended.
3. The objection to claim 23 is withdrawn as required by the amendment.
4. The rejections of claims 1 and 24 as being failed to be enabled under 35 U.S.C. 112, first paragraph, are withdrawn as necessitated by amendment.
5. The rejections of claims 1 and 24 as being indefinite under 35 U.S.C. 112, second paragraph, are withdrawn as necessitated by amendment.

### ***Specification***

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art. The Examiner notes specifically that the Abstract as presently constructed refers to the fact that flattening the document generally significantly reduces the number of lines used to describe the document (see lines 12-13 of the Abstract) which violates this rule.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

#### ***Claim Objections***

7. Claim 1 objected to because of the following informalities: In line 1 of the claim, “flatten” should be “flattened”. Appropriate correction is required.
8. Claim 24 objected to because of the following informalities: In line 3 of the claim, “from” should be “form”.

#### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

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Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-31 remain rejected under 35 U.S.C. 101 because the claimed inventions are directed to non-statutory subject matter. All of these claims are directed to inventions that could be performed solely by human means, without technological intervention. Furthermore, even if the methods were performed on a computer, they solely manipulate data without any observable result or interaction with the user. The changes to the claims presented in this Amendment have failed to remedy the issues under 35 U.S.C. 101 which necessitate this rejection, but the Examiner notes that they could be overcome by explicitly stating that the methods claimed are electronic methods or that they are performed on a computer.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. **Claims 1, 4-5, 13, and 16 remain rejected under 35 U.S.C. 102(e) as being anticipated by Nehab et al. (USPN 6,029,182—filing date 10/4/1996), hereinafter Nehab.**
11. **Regarding independent claim 1, Nehab discloses a method of storing a structured data document, comprising the steps of: flattening the structured data document to form a**

flattened data document, each line of the flattened data document containing a plurality of tags, a data entry and a plurality of format characters; (flattening a hypermedia document into a linear document is described in col. 2., lines 55-65 of Nehab; this inherently must include these components) and b) storing the plurality of tags, the data entry and the plurality of format characters (since the linear document is formatted into a formatted document, it must be stored first).

12. **Regarding dependent claim 4**, Nehab discloses the steps of: a1) receiving the structured data document; a2) determining a first data entry; a3) placing in a first line a first plurality of open tags proceeding the first data entry and the first data entry; a4) determining a next data entry; and a5) placing a next plurality of open tags proceeding the next data entry in a next line. These steps are all inherent to the process of flattening a hypermedia document into a linear document, which is described in col. 2., lines 55-65 of Nehab, and hence the claim may be rejected.
13. **Regarding dependent claim 5**, Nehab discloses the step of a6) repeating steps (a4) and (a5) until a next data entry entry is not found. This step is inherent to the process of flattening a hypermedia document into a linear document, which is described in col. 2., lines 55-65 of Nehab, and hence the claim may be rejected.
14. **Regarding dependent claim 13**, Nehab discloses flattening hypermedia documents and XML documents are a type of hypermedia documents, so this inherently encompasses the step of receiving an extensible markup language document.
15. **Regarding independent claim 16**, Nehab discloses a method of flattening a structured data document (see col. 2, lines 55-65, the document is flattened into a linear document),

comprising the steps of: a) receiving the structured data document (this is inherent to flattening the document); b) determining a first data entry (this is inherent to flattening the document); and c) storing in a first line a first plurality of open tags and storing the first data entry (this is inherent to flattening the document).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**16. Claims 2-3 and 24-26 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nehab further in view of Voigt et al. (USPN 5,537,534—filing date 2/10/1995), hereinafter Voigt.**

**17. Regarding dependent claim 2,** Nehab fails to disclose the steps of b1) storing the plurality of tags in a tag and data store; b2) storing the plurality of format characters in a map store. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to store the tags in an tag and data store because it was notoriously well known in the art at the time of the invention that tags were typically stored in a tag and data store because that is the type of store that is adapted to them. Furthermore, Voigt discloses, in col. 4, lines 25-35 that it is advantageous to store data in a map store because it provides for persistent storage of virtual mapping information, so, it would have been obvious to one of ordinary skill in the art at the time of the invention to have

used a map store to store the format characters because would have provided for persistent storage of virtual mapping information.

18. **Regarding dependent claim 3**, Nehab fails to explicitly disclose the steps of b3) storing the data entry in the tag and data store; b4) storing a first pointer in the map store that points to the plurality of tags in the tag and data store; b5) storing a second pointer in the map store that points to the data entry in the tag and data store. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to store the data entry in the tag and data store because it was notoriously well known in the art at the time of the invention that a data store is adapted to store data entries. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to store pointers in the map store to the tags and data store and to the data entry in the data store because it was notoriously well known in the art at the time of the invention that map stores are used to interconnect organizational elements of a data processing system to facilitate access.

19. **Regarding independent claim 24**, Nehab discloses a method of storing a structured data document (in col. 2., lines 55-65 of Nehab, Nehab discloses flattening a document to store it); a) flattening the structured data document to form a flattened data document, each line of the flattened data document containing a tag, a data entry and a formatting character (in col. 2., lines 55-65 of Nehab, Nehab discloses flattening a document to store it). Nehab fails to disclose b) storing the formatting character in a map store and c) storing the tag and data entry in a tag and data store. However, Voigt discloses, in col. 4, lines 25-35 that it is advantageous to store data in a map store because it provides for



persistent storage of virtual mapping information, so, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a map store to store the formatting character because would have provided for persistent storage of virtual mapping information. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to store the tags and data entry in an tag and data store because it was notoriously well known in the art at the time of the invention that tags and data entry were typically stored in a tag and data store because that is the type of store that is adapted to them.

20. **Regarding dependent claim 25**, it involves limitations from Claim 3 applied to Claim 24 and is rejected under similar rationale.
21. **Regarding dependent claim 26**, Nehab fails to disclose creating a cell in the map store for each of a plurality of lines in a flattened document. However, Voigt discloses, in col. 4, lines 25-35 that it is advantageous to store data in a map store because it provides for persistent storage of virtual mapping information, so, it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a map store to store lines from the document in a map store because it would have provided for persistent storage of virtual mapping information.
22. **Claim 6-12, 14-15, and 17-23 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nehab.**
23. **Regarding dependent claim 6**, Nehab fails to explicitly disclose I) placing a format character in the first line. However, it was notoriously well known in the art at the time of the invention that using a format character would be necessary to preserve the structure

of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a format character to preserve the structure of a flattened document.

24. **Regarding dependent claim 7**, Nehab fails to explicitly disclose I) placing in the first line, a number that indicates a level of a first tag that was opened. However, it was notoriously well known in the art at the time of the invention that recording tag level would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded tag level to preserve the structure of a flattened document.

25. **Regarding dependent claim 8**, Nehab fails to explicitly disclose I) placing in the first line, a number that indicates a number of tags that are consecutively closed after the first data entry. However, it was notoriously well known in the art at the time of the invention that recording tag closings would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded tag closings to preserve the structure of a flattened document.

26. **Regarding dependent claim 9**, Nehab fails to explicitly disclose I) placing in a first line, a number that indicates a line number of a parent of a lowest level tag. However, it was notoriously well known in the art at the time of the invention that recording line placements would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded line placements to preserve the structure of a flattened document.

27. **Regarding dependent claim 10**, Nehab fails to explicitly disclose I) placing in the first line, a number that indicates a level of a first tag that was opened but not closed. However, it was notoriously well known in the art at the time of the invention that recording tag levels would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded tag levels to preserve the structure of a flattened document.
28. **Regarding dependent claim 11**, Nehab fails to explicitly disclose I) placing in the first line, a character that indicates a line type. However, it was notoriously well known in the art at the time of the invention that recording line type would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded line type to preserve the structure of a flattened document.
29. **Regarding dependent claim 12**, Nehab fails to explicitly disclose I) placing in the first line, a character that provides line control information. However, it was notoriously well known in the art at the time of the invention that recording line control information would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the time of the invention to have recorded line control information to preserve the structure of a flattened document.
30. **Regarding dependent claim 14**, Nehab fails to explicitly disclose I) determining a format character. However, it was notoriously well known in the art at the time of the invention that using a format character would be necessary to preserve the structure of a flattened document, so it would have been obvious to one of ordinary skill in the art at the

time of the invention to have determined a format character to preserve the structure of a flattened document.

31. **Regarding dependent claim 15**, Nehab fails to teach placing the next data entry in the next line. However, it was notoriously well known in the art at the time of the invention that separate data entries were placed on separate lines to differentiate them. It would have been obvious to one of ordinary skill in the art at the time of the invention to place entries on separate lines to differentiate them.

32. **Regarding dependent claim 17**, Nehab fails to teach d) determining a level of a first opened tag; e) storing the level of the first opened tag in the first line. However, it was notoriously well known in the art at the time of the invention that determining tag levels and storing them is necessary if the document is to be reconstructed. It would have been obvious to one of ordinary skill in the art at the time of the invention to have determined tag levels and stored them so the document could be reconstructed.

33. **Regarding dependent claim 18**, Nehab fails to teach d) determining a number of consecutive tags closed after the first data entry; e) storing the number in the first line. However, it was notoriously well known in the art at the time of the invention that determining tag closings and storing them is necessary if the document is to be reconstructed. It would have been obvious to one of ordinary skill in the art at the time of the invention to have determined tag closings and stored them so the document could be reconstructed.

34. **Regarding dependent claim 19**, Nehab fails to teach d) storing a line number.

However, it was notoriously well known in the art at the time of the invention that storing

a line number is necessary if the document is to be reconstructed. It would have been obvious to one of ordinary skill in the art at the time of the invention to have stored line numbers so the document could be reconstructed.

35. **Regarding dependent claim 20**, Nehab fails to explicitly teach the steps of: d) determining a next data entry; e) storing a next plurality of open tags proceeding the next data entry in a next line; f) repeating steps (d) and (e) until a next data entry is not found. However, it was notoriously well known in the art at the time of the invention that repeatedly extracting data entries would be necessary to flattening the document, and would hence be an obvious approach to implementing Nehab's invention with the advantage of compactly representing the document. It would have been obvious to one of ordinary skill in the art at the time of the invention to have repeatedly extracted data entries in order to compactly represent the document.
36. **Regarding dependent claim 21**, Nehab fails to explicitly disclose determining that the first data entry is a null. However, it was notoriously well known in the art at the time of the invention that a program would need to detect entries that are null in order to properly handle null input. It would have been obvious to one of ordinary skill in the art at the time of the invention to detect entries that are null in order to properly handle null input.
37. **Regarding dependent claim 22**, Nehab fails to explicitly disclose e1) storing a plurality of format characters associated with the next data entry. However, it was notoriously well known in the art at the time of the invention that using format characters would be necessary to preserve the structure of a flattened document, so it would have been

obvious to one of ordinary skill in the art at the time of the invention to have determined a format character to preserve the structure of a flattened document.

38. **Regarding dependent claim 23**, Nehab fails to explicitly disclose g) expanding a flattened data document into the structured data document using a plurality of formatting characters. However, it was notoriously well known in the art at the time of the invention that appropriately constructed transformations can be inverted, and it would have been obvious to one of ordinary skill in the art at the time of the invention to have inverted the flattening transformation and expanded a flattened document to recover the original.
39. **Claims 27-28 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nehab further in view of Voigt, further in view of Yard et al. (USPN 5,896,393—filing date 5/23/1996), hereinafter Yard.**
40. **Regarding dependent claim 27**, Nehab and Voigt fail to disclose f) receiving a request to delete one of a plurality of data entries; g) determining the cell associated with the one of the plurality of data entries; h) setting a delete flag. However, Yard discloses in lines 1-20 of the Abstract the use of a Active/Delete flag to manage the deletion of files easily, which is analogous art. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a delete flag in Nehab and Voigt's invention in the manner of Yard's invention in order to facilitate the management of cell deletion in an organized and efficient manner.
41. **Regarding dependent claim 28**, Nehab and Voigt fail to disclose i) receiving a restore command; j) unsetting the delete flag. However, Yard discloses in lines 1-20 of the Abstract the use of a Active/Delete flag to manage the restoration of files easily, which is

analogous art. It would have been obvious to one of ordinary skill in the art at the time of the invention to unset the delete flag in Nehab and Voigt's invention in the manner of Yard's invention in order to facilitate the management of cell restoration an organized and efficient manner.

**42. Claim 29 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Nehab further in view of Voigt, further in view of Nitta et al. (USPN 5,287,521—filing date 6/12/1990), hereinafter Nitta.**

**43. Regarding dependent claim 29,** Nehab, Voigt, and Yard fail to disclose f) receiving a request to delete one of a plurality of data entries and a plurality of related tags; g) setting a delete flag equal to the number of the plurality of related tags plus one. However, Nitta uses a deletion counter in col. 6, lines 27-44 to effectively manage deletion of multiple objects by organizing deletion flow. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a deletion counter in the manner of Nitta to effectively manage the deletion of multiple objects by organizing deletion flow.

**44. Claims 30-31 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nehab further in view of Voigt, further in view of Leichty et al., (USPN 6,041,060—filing date 4/30/1997), hereinafter Leichty**

**45. Regarding dependent claim 30,** Nehab and Voigt fail to disclose the steps of: d) receiving a request to insert a new entry; e) finding a previous cell containing a proceeding data entry; f) storing the new entry at an end of the map store; g) moving a contents of a next cell after the new entries' h) storing an insert flag and a pointer to the new entry in the next cell. However, Leichty discloses in col. 3, lines 59-67 and col. 4,

lines 1-15 a system by which pointers are used to insert entries into a data system in a mapping arrangement. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Leichty's pointer insertion system in Nehab and Voigt's inventions because it would allow the user to have the capacity to extend a data file.

46. **Regarding dependent claim 31**, Nehab and Voigt fail to disclose the step of: i) storing a second insert flag and a second pointer after the contents of the next cell. However, Leichty discloses the use of chains of pointer in col. 3, lines 59-67 and col. 4, lines 1-15. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Leichty's chained pointers in Nehab and Voigt's inventions because it would allow the user to have the capacity to have quicker insertion, as Leichty points out on col. 4, line 12.

#### ***Response to Arguments***

47. Applicant's arguments filed 8/23/2004 have been fully considered but they are not persuasive.
48. Regarding the Applicant's arguments regarding Claim 1, Nehab discloses flattening the structured documents, and since tags, a data entry, and formatting characters are inherent parts of a structured document, they would also be parts of a flattened structured document.
49. Regarding the Applicant's arguments regarding Claim 2, as noted in the rejection, the use of tags in tag and data stores are notoriously well known, definitional concepts (whatever is used to store tags is by definition a tag store).



50. Regarding the Applicant's arguments regarding Claim 3, the Examiner has added a reference as requested to the rejection (see Chou et al. (USPN 5,813,031—filing date 1/29/1997), Figure 5, Item 72.
51. Regarding the Applicant's arguments regarding Claim 4, the Examiner maintains that the content of the structured document is being flattened and hence the steps of Claim 4 are inherent. The same reasoning applies to claim 5.
52. Regarding Claim 6, the Examiner refers the Applicant to Daniels (USPN 4,689,764—filing date 3/19/1986) in col. 4, lines 10-40.
53. Regarding Claim 7, the Examiner refers the Applicant to Kozol et al. (USPN 5,140,521—filing date 4/26/1989) in the Abstract lines 1-15.
54. Regarding Claim 8, the Examiner refers the Applicant to Kozol et al. (see the response to Claim 7, above) and once again to the Abstract lines 1-15, to which the content of the claim is inherent.
55. Regarding Claims 9-12, tag numbering that indicates level data as well as line information is disclosed in Rees et al. (USPN 5,748,878—filing date 9/11/1995), in col. 14, lines 40-65. Claims 14 and 15 would be inherent to Rees because it would be necessary to determine a format character to encode the formatting of the line and to place the next data entry on the next line in order to separate distinct data entries.
56. Regarding Claim 13, the Applicant presents no new arguments.
57. Regarding Claim 16, the Examiner maintains his assertion that finding a first data entry and placing in a first line a first group of open tags and the first data entry is a necessary and inherent part of flattening.

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58. Regarding claims 17-23, combining a reference to Kozol, Abstract lines 1-15 in terms of the way structured documents are marked up and manipulated and
59. The situation regarding Claim 24 is similar to that regarding Claim 16 and the Examiner employs the same argument.
60. Regarding Claim 25, a tag and data store are referred to as in Chou, Figure 5, Item 72 as in the response to the arguments regarding Claim 3
61. Regarding Claim 26, map stores inherently include cells (or some form of equivalent storage space) by their very nature.
62. Regarding Claims 27-31, the Applicant presents no new arguments.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,748,878 (filing date 9/11/1995)—Rees et al.

USPN 4,689,764 (filing date 3/19/1986)—Daniels

USPN 5,140,521 (filing date 4/26/1989)—Kozol et al.

USPN 5,813,031 (filing date 1/29/1997)—Chou et al.

USPN 6,671,853 B1 (filing date 7/15/1999)—Burkett et al.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is (571) 272-4129. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS

  
**STEPHEN HONG**  
**ADVISORY PATENT EXAMINER**